



IN THE COURT OF APPEALS

Please AMEND claims 1-30; and

Please ADD claims 31-32 as shown below.

1. (Currently Amended) A method ~~for storing data records on a database system in which a signing entity is used for signing data records, the method comprising:~~
receiving a second data record to be stored on a database;
retrieving a first integrity checksum stored with a first data record previous to the second data record;
computing a second integrity checksum for the second data record with a cryptographic method based on a storage key, the retrieved first integrity checksum and the second data record; and
storing the second data record and the second integrity checksum on the database.
2. (Currently Amended) The method according to claim 1, ~~wherein~~ further comprising:
configuring the storage key is to be a secret key of public key infrastructure.
3. (Currently Amended) The method according to claim 1, ~~wherein~~ further comprising:

configuring the retrieved integrity checksum for a first row of the database ~~is to be~~
a generated initialization vector.

4. (Currently Amended) The method according to claim 1, ~~wherein~~ further
comprising:

configuring the retrieved integrity checksum for a first row of the database ~~is to be~~
a digital signature of ~~the~~ a signing entity.

5. (Currently Amended) The method according to claim 1, wherein the
retrieving the first integrity checksum ~~is retrieved~~ comprises retrieving the first integrity
checksum from a memory of a signing entity.

6. (Currently Amended) The method according to claim 1, ~~wherein~~ further
comprising:

storing the second integrity checksum ~~is stored on~~ a memory of ~~the~~ a signing
entity.

7. (Currently Amended) The method according to claim 1, ~~wherein~~ further
comprising:

configuring the integrity checksums to comprise a running sequence number.

8. (Currently Amended) A method ~~for verifying integrity of data records on a database in which a verification entity is used for verifying integrity of data records, the method comprising:~~

retrieving a second data record to be verified from a first database;
retrieving a second integrity checksum of the second data record;
retrieving a first integrity checksum of a first data record previous to the retrieved second data record;
computing a third integrity checksum for the second data record based on the retrieved second data record, the first integrity checksum, and a storage key; and
comparing the second integrity checksum to the third integrity checksum, wherein the second data record is considered authentic ~~if~~when the second integrity checksum and the third integrity checksums are equal.

9. (Currently Amended) The method according to claim 8, ~~wherein~~ further comprising:

configuring the storage key ~~is to be~~ a public key of public key infrastructure.

10. (Currently Amended) The method according to claim 8, ~~wherein~~ further comprising:

configuring the retrieved integrity checksum for a first row of the database ~~is to be~~ a generated initialization vector.

11. (Currently Amended) The method according to claim 8, ~~wherein~~ further comprising:

configuring the retrieved integrity checksum for a first row of the database ~~is to be~~ a digital signatory of ~~the~~ a signing authority.

12. (Currently Amended) The method according to claim 8, wherein the retrieving the first integrity checksum is retrieved comprises retrieving the first integrity checksum from a memory of a verification entity.

13. (Currently Amended) The method according to claim 8, ~~wherein~~ further comprising:

storing the second integrity checksum ~~is stored~~ on a memory of a verification entity.

14. (Currently Amended) The method according to claim 8, ~~wherein~~ further comprising:

configuring the integrity checksums to comprise a running sequence number.

15. (Currently Amended) ~~A system for storing data records on a database system in which a signing entity is used for signing data records and a verification entity is used for verifying integrity of data records, wherein the system comprises~~comprising:

a database configured to store and provide signed data;

a data source configured to provide data records to be stored on the database system;

a signing entity configured to sign data records to be stored on the database system with a second integrity checksum computed based on a second data record, a first integrity checksum of the first data record previous to the second data record to be signed, and a storage key; and

a verification entity configured to verify integrity of chosen data records by computing a computed third integrity checksum based on the second data record, the first integrity checksum of the first data record previous to the second data record, and the storage key, and comparing the computed third integrity checksum to the second integrity checksum stored on the database.

16. (Currently Amended) The system according to claim 15, wherein the signing entity and verification entity are configured to apply public key infrastructure ~~for~~ to calculating-calculate and verifying ~~the~~ at least one of the first integrity checksum and or the second integrity checksum.

17. (Currently Amended) A computer program embodied on a computer readable medium, said computer program for storing data records on a database system in which a signing entity is used for signing data records, wherein the computer program performs a process comprising the following steps-when executed in a computer device:

receiving a second data record to be stored on a database;

retrieving a first integrity checksum stored with a first data record previous to the second data record;

computing a second integrity checksum for the second data record with a cryptographic method based on a storage key, the retrieved first integrity checksum and the second data record; and

storing the second data record and the second integrity checksum on the database.

18. (Currently Amended) ~~A~~The computer program according to claim 17, wherein the storage key is a secret key of public key infrastructure.

19. (Currently Amended) ~~A~~The computer program according to claim 17, wherein the retrieved integrity checksum for a first row of the database is a generated initialization vector.

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20. (Currently Amended) ~~A~~The computer program according to claim 17, wherein the retrieved integrity checksum for a first row of the database is a digital signatory of the signing entity.

21. (Currently Amended) ~~A~~The computer program according to claim 17, wherein the first integrity checksum is retrieved from a memory of the signing entity.

22. (Currently Amended) ~~A~~The computer program according to claim 17, wherein the second integrity checksum is stored on a memory of the signing entity.

23. (Currently Amended) ~~A~~The computer program according to claim 17, wherein the integrity checksums comprise a running sequence number.

24. (Currently Amended) A computer program embodied a computer-readable medium for verifying the integrity of data records on a database, wherein the computer program performs a process comprising the following, ~~steps~~-when executed in a computer device:

retrieving a second data record to be verified from a database;

retrieving a second integrity checksum of the second data record to be verified from a database;

retrieving a first integrity checksum of a first data record previous to the retrieved second data record;

computing a third integrity checksum for the second data record based on the retrieved second data record, the first integrity checksum, and a storage key; and

comparing the second integrity checksum to the third integrity checksum, wherein the second data record is considered authentic ~~if~~when the second integrity checksum and the third integrity checksums are equal.

25. (Currently Amended) ~~A~~The computer program according to claim 24, wherein a storage key is a public key of public key infrastructure.

26. (Currently Amended) ~~A~~The computer program according to claim 24, wherein the retrieved integrity checksum for a first row of the database is a generated initialization vector.

27. (Currently Amended) ~~A~~The computer program according to claim 24, wherein the retrieved integrity checksum for a first row of the database is a digital signatory of a signing authority.

28. (Currently Amended) ~~A~~The computer program according to claim 24, wherein the first integrity checksum is retrieved from a memory of a verification entity.

29. (Currently Amended) ~~A~~The computer program according to claim 24, wherein the second integrity checksum is stored on a memory of a verification entity.

30. (Currently Amended) ~~A~~The computer program according to claim 24, wherein the integrity checksums comprise a running sequence number.

31. (New) A system, comprising:

- storage means for storing and providing signed data;
- provision means for providing data records to be stored on the storage means;
- signing means for signing data records to be stored on the storage means with a second integrity checksum computed based on a second data record, a first integrity checksum of the first data record previous to the second data record to be signed, and a storage key; and
- verification means for verifying integrity of chosen data records by computing a computed third integrity checksum based on the second data record, the first integrity checksum of the first data record previous to the second data record, and the storage key, and comparing the computed third integrity checksum to the second integrity checksum stored on the storage means.

32. (New) The system of claim 31, wherein the signing means and verification means are configured to apply public key means for calculating and verifying at least one of the first integrity checksum or the second integrity checksum.